

REMARKS

Re-examination and reconsideration of the subject matter identified in caption, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow, are respectfully requested.

Claims 1-5 and 7-11 remain pending in this application. Claims 4, 5, 10 and 11 have been withdrawn from consideration on the merits as not readable on the elected invention.

Claims 1, 2, 7 and 8 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,278,272 to Lai et al. for the reasons set forth in paragraph (5) of the Office Action. Reconsideration of this rejection is respectfully requested for at least the following reasons.

Claim 1 is directed to an ethylene polymer having a density of 0.930 to 0.970 g/cm³, a ratio (Mw/Mn) of 1.2 to 10, and a ratio (MFR₁₀/MFR₂) of 16.2 to 50. Claim 2 is directed to an ethylene polymer having a density of 0.921 or more but less than 0.930 g/cm³, a ratio (Mw/Mn) of 1.2 to 4.0, and a ratio (MFR₁₀/MFR₂) of 12 to 50.

Lai et al. '272 generically describes substantially linear polymers having a density of about 0.85 g/cm³ to about 0.97 g/cm³, a melt flow ratio I₁₀/I₂ of about 7 to about 20, and a ratio Mw/Mn preferably less than about 5, especially about 1.5 to about 2.5, and most preferably about 1.7 to about 2.3 (column 3, lines 4-14). The substantially linear polymers contemplated by this reference are listed in column 3, lines 24-56 and literally encompass several hundred homopolymers of C₂₋₂₀ α-olefins and copolymers thereof with various

combinations of comonomers. The specific ethylene polymers described in the working examples have densities of 0.870 and I_{10}/I_2 ratios of 7.61 or 7.62 and therefore, are substantially outside the scope of the present claims.

According to M.P.E.P. §2131.03:

When the prior art discloses a range which touches, overlaps or is within the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute."

This section also states:

The question of "sufficient specificity" is similar to that of "clearly envisaging" a species from a generic teaching. See MPEP §2131.02.

When one considers that the scope of the disclosure of Lai et al. '272 encompasses hundreds of α -olefin polymers, that the ranges for density and melt flow ratios and molecular weight distribution ratios disclosed therein encompass many values outside the ranges of the present claims, and that the specific polymers disclosed in the working examples have densities and melt flow ratios far below the minimum values set forth in the present claims, it is quite clear that the claimed subject matter is not disclosed in Lai et al. with "sufficient specificity to constitute an anticipation under the statute." Accordingly, the §102(b) rejection over this reference should be withdrawn and such action is earnestly requested.

Claim 3 has been rejected under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,300,433 to Rodriguez et al. for the reasons given in paragraph (6) of the Office Action. Claim 9 stands rejected under 35 U.S.C. §103(a) as unpatentable over Rodriguez et al. '433 for the reasons given in paragraph (7) of the Office Action. Reconsideration and withdrawal of these rejections are respectfully requested for at least the reasons which follow.

The invention of this reference relates to a polymerization process for preparing ethylene polymers having a density of 0.850 to 0.930 g/ml, preferably 0.087 to 0.925, more preferably 0.089 to 0.920 (column 10, lines 12-15). The densities of the polymers prepared in the working examples are not disclosed. The polymers actually prepared in the working examples have an MI (melt index) ranging from 0.009 to 0.041 (Table 2), i.e., have relatively high molecular weights.

To the contrary, the ethylene polymers described in the working examples of the present application have lower molecular weights as evidenced by their relatively higher MFR₂ values. In order to demonstrate this, the Applicants have measured the molecular weights of the polymers prepared in the working examples of this application and provide the following data:

Ex. No.	MFR ₂	Mw	Mn	Mw/Mn
3	0.06	133000	67100	1.98
4	1.6	62000	29800	2.08
5	0.18	126000	57800	2.18
6	0.36	76100	36200	2.1
7	0.11	85000	38600	2.2
8	0.19	78000	35300	2.21
9	0.12	61000	20700	2.95
10	0.04	not measured		

These results indicate that the Applicants' claimed polymers have lower molecular weights than the polymers prepared by Rodriguez et al. '433.

Accordingly, the §102(e) rejection over this reference should be withdrawn because the subject matter of claim 3 is not disclosed therein with "sufficient specificity to constitute an anticipation under the statute." The §103(a) rejection of claims 3 and 9 over Rodriguez et al. '433 should be withdrawn since there is no suggestion, motivation or teaching in the reference which would have led a person skilled in the art to modify the disclosure thereof in such a way as to produce the polymers defined by Applicants' claims.

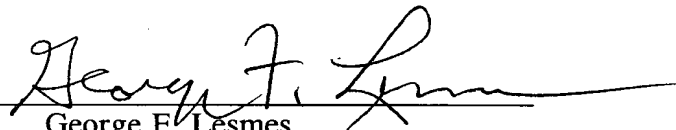
From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at his earliest convenience.

Respectfully submitted,

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